

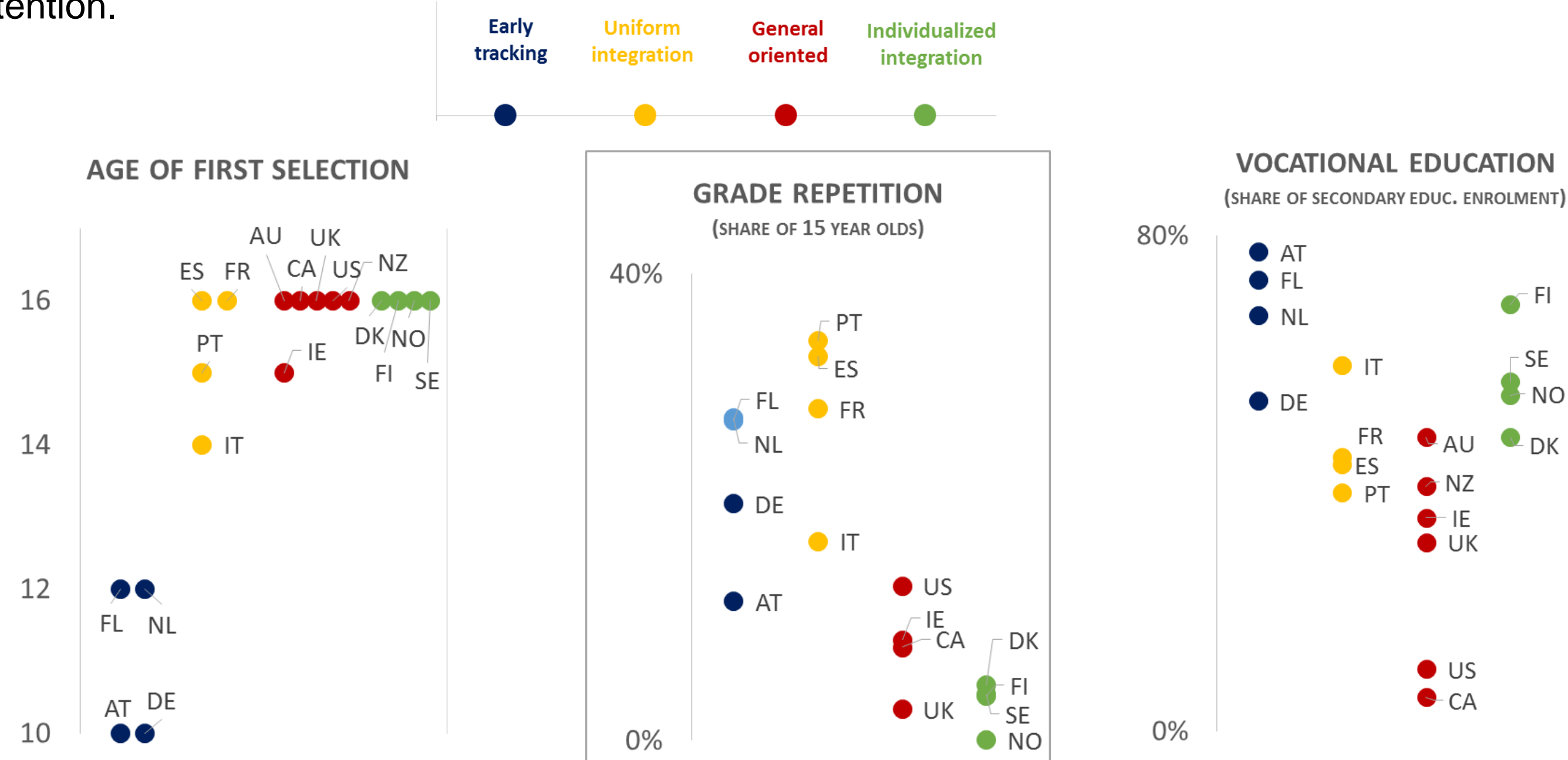


# Short- and long-term effects of educational system design: a comparative perspective

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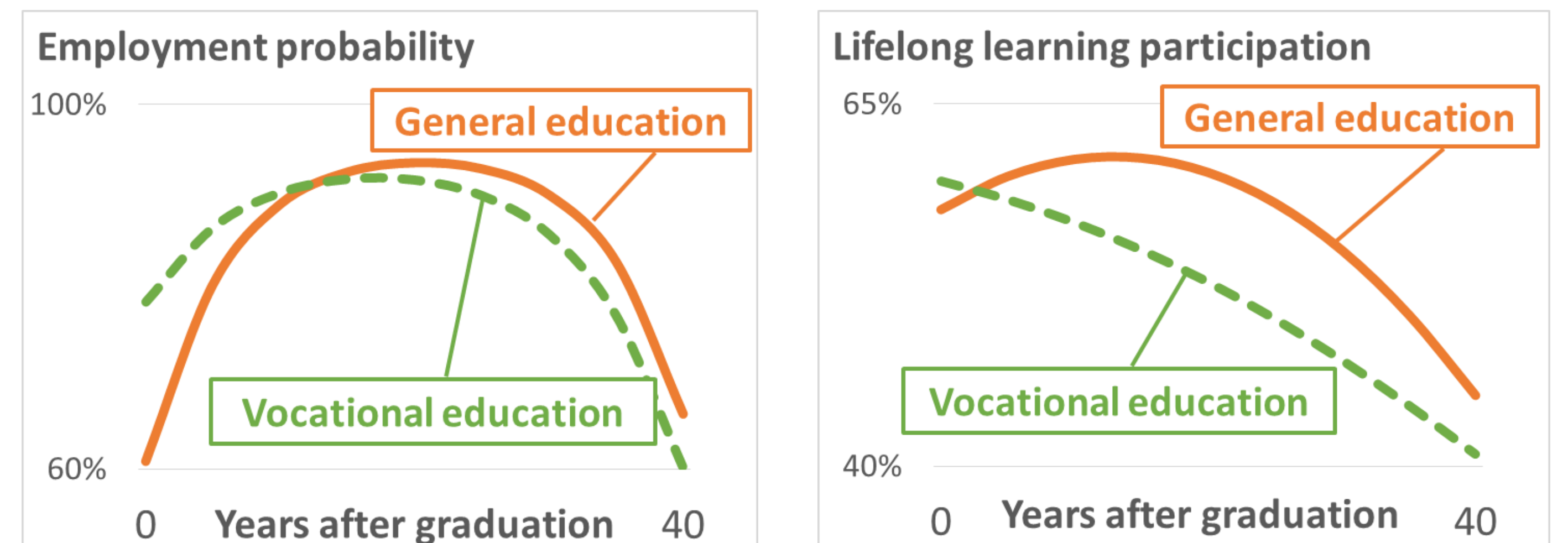
## Different countries, different educational systems

Educational systems have to resolve a permanent dilemma between differentiation (as students differ and society requires different profiles) and integration (as schools have to provide all students with strong common foundations for life in a complex society). Different answers to this dilemma have given rise to different educational structures across countries and times, differing in aspects such as the age of first selection, the development of vocational education, or the reliance on grade retention.



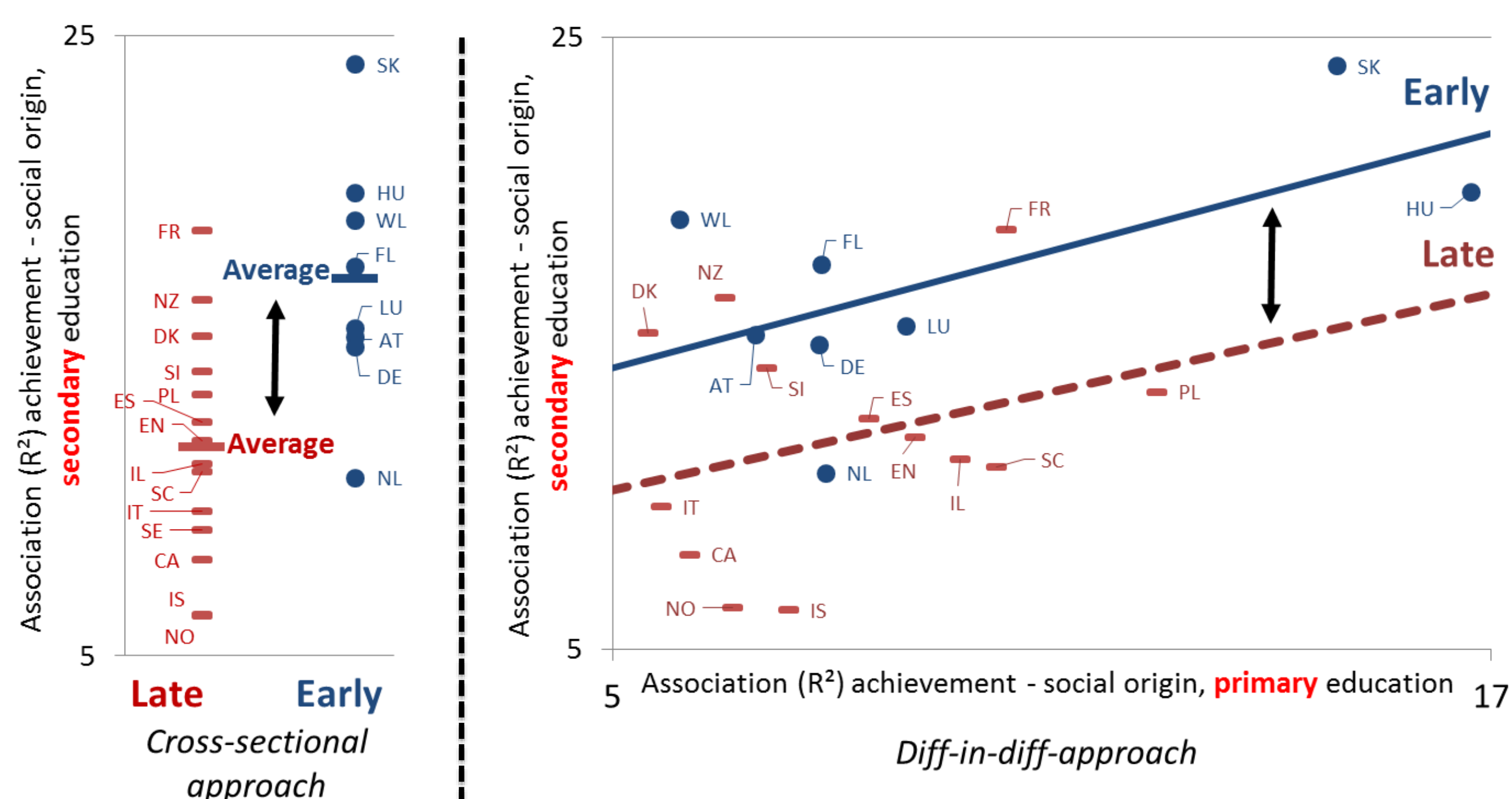
## Immediate labour market preparation or lifelong employability?

An important issue in the design of educational systems is the balance between delivering general and occupation-specific skills. On one hand, vocational oriented programmes have been repeatedly shown to secure safe pathways into employment. On the other hand, these programmes tend to put less emphasis on 'foundational' skills (functional literacy, learning attitudes...), which are key to adapt flexibly to changing labour market requirements. By comparing the labour market careers of general and vocational educated respondents in PIAAC (2012), keeping differences in selectivity under control, a trade-off between short-term gains and long-term losses of vocational education was empirically validated, both in terms of employment probabilities and earnings. Moreover, vocational educated respondents indeed reported a lower participation in learning activities.

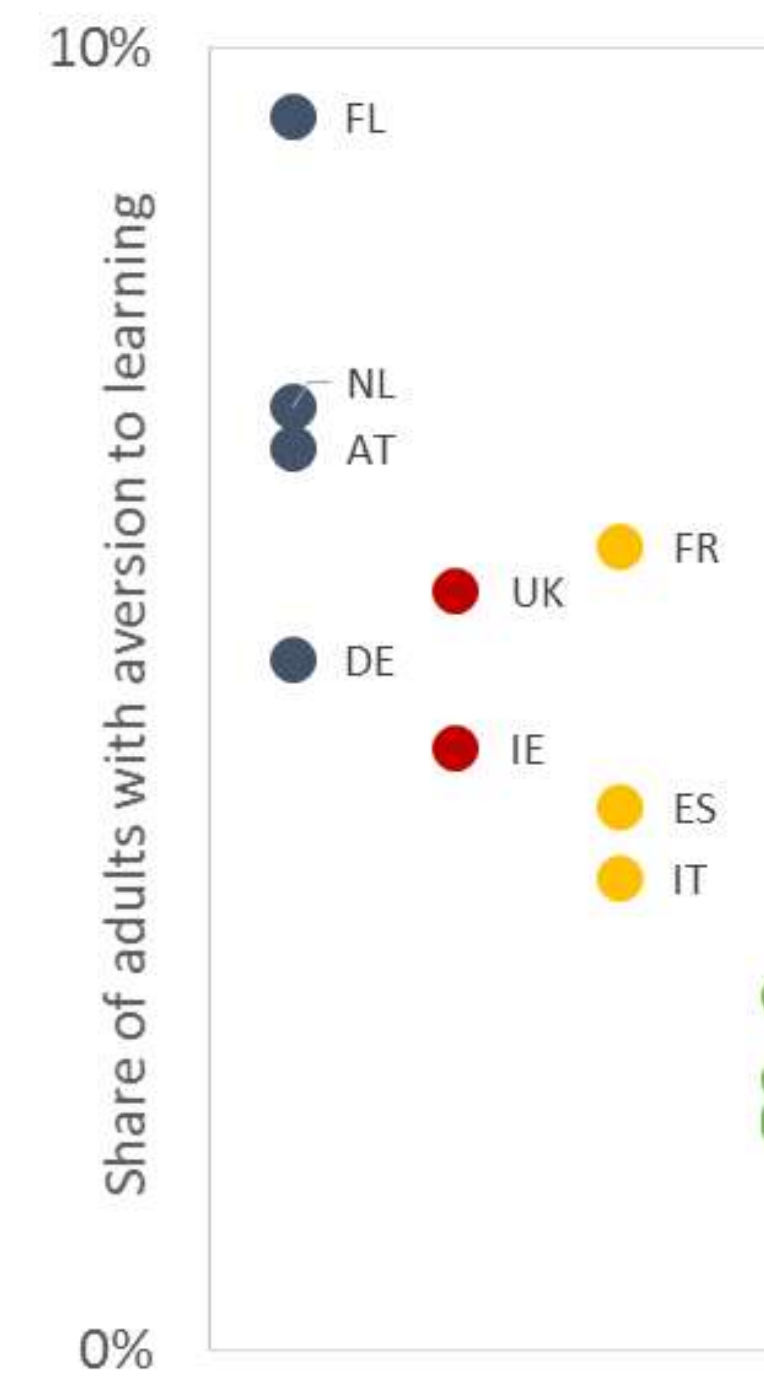


## Early tracking intensifies social inequality in reading skills

Student achievement tests collected among 15 year olds (PISA) have repeatedly suggested that social inequality in skills is larger in early tracking countries. However, achievement at 15 years is largely dependent on achievement in primary school. Hence, I developed a difference-in-differences-model which estimates the effect of early tracking on social inequality in reading skills among 15 years olds (PISA 2012), correcting for the social inequality observed already in the 4<sup>th</sup> grade of primary school (PIRLS 2006). The results showed that the early introduction of tracking was indeed associated with a stronger link between social origin and reading achievement. In particular, early tracking seemed detrimental to the educational opportunities of socially disadvantaged students, while it did not affect the achievement of their more advantaged peers.



## External differentiation and the development of learning attitudes



Finally, I examined how the design of the school system might affect the formation of attitudes towards learning and, in the longer run, participation in lifelong learning. A cross-national comparison of the attitudes towards learning of adults, measured in PIAAC (2012), suggested that respondents from systems with early tracking, ability grouping and/or an extensive reliance on grade retention reported less positive attitudes towards learning. This cross-sectional suggestion was further scrutinized by comparing attitudes among adults with attitudes collected in primary school (PIRLS and TIMSS).

Standardized estimates from a multivariate regression model explaining attitudes among adults as a function of secondary education system characteristics, correcting for attitudes in primary education. \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

Primary measurement point	PIRLS	TIMSS
Attitude in primary education	0.37	0.70***
Index of tracking	0.37	0.59**
Grade retention rate		0.87***
		0.46*

## Selected literature

**Full dissertation** (to be defended June 2016): Lavrijsen, J. (2016), 'Integration and differentiation. The impact of educational regimes at secondary level on equity and social mobility in comparative perspective', Faculty of Psychology and Educational Sciences, KU Leuven.

**Skills inequality:** Lavrijsen, J. & Nicaise, I. (2015), 'New empirical evidence on the effect of educational tracking on social inequalities in reading achievement', *European Educational Research Journal*, vol. 14, p. 206 - 221.

**School dropout:** Lavrijsen, J. & Nicaise, I. (2015), 'Social Inequalities in Early School Leaving: The Role of Educational Institutions and the Socioeconomic Context', *European Education*, vol. 47, p. 295 - 310.

**Labour market outcomes and lifelong learning:** Lavrijsen, J. & Nicaise, I. (2015), 'Een sterke basisvorming voor duurzame kansen op de arbeidsmarkt', *Over.werk*, vol. 25, 73 - 78.

**Hervorming secundair:** Lavrijsen, J. & Nicaise, I. (2014), 'Een brede basisvorming: meer kansen voor elke leerling of nivellerende eenheidsworst?', in: Nicaise, I., Spruyt, B., Van Houtte, M. en Kavadias, D. (eds.), *Het onderwijsdebat: waarom de hervorming van het secundair broodnodig is*, Berchem: EPO.

## Early dropout: not only the school system matters

Reducing the number of unqualified school leavers is a key objective in educational policy. Previous research has shown that in particular youngsters from socially disadvantaged families face high dropout risks. Using data from the Labour Force Survey in a multi-level model, I examined how macro-level determinants influence the distribution of school dropout risks among different social groups. First, the design of the educational system seemed to matter: countries with a well-developed system of vocational education reported a lower school dropout. However, the strongest effect came from outside the school system, as in particular the poverty rate strongly affected the social distribution of dropout risks. The graphs show the estimated distribution of the dropout risk with the selected macro-variable 1 SD above resp. below average (ceteris paribus).

